REMARKS / ARGUMENTS

I. General Remarks.

This Application has been carefully reviewed in light of the Final Office Action mailed April 20, 2005. At the time of the Final Office Action, Claims 1-8, 10-13 and 23-32 were pending in this Application. Claims 1-8, 10-13 and 23-32 were rejected. Claims 9 and 14-22 were previously cancelled without prejudice or disclaimer. Claims 1, 25, and 30-32 have been amended in this response. Claims 4, 24, and 28 have been cancelled in this response. Applicant respectfully requests reconsideration and favorable action in this case.

II. Claim Objections.

Claims 4 and 28 were objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant cancels claims 4 and 28 to overcome these rejections and respectfully requests full allowance of all remaining claims.

III. Rejections Under 35 U.S.C. § 112.

Claim 32 was rejected by the Examiner under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. Applicant amends claim 32 to overcome these rejections and respectfully requests full allowance of claim 32 as amended.

Claims 25 and 32 were rejected by the Examiner under 35 U.S.C. §112, second paragraph, as being indefinite and failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Applicant amends claims 25 and 32 to overcome these rejections and respectfully requests full allowance of claims 25 and 32 as amended.

IV. Rejection Under 35 U.S.C. § 102.

Claims 1-4, 10, 11, 13, and 23-32 stand rejected under 35 U.S.C. §102(a) and §102(e) as being anticipated by U.S. Patent No. 6,103,472 ("Thukral"). Independent claims 1, 25, and 32 have been amended in this Response, and claims 4, 24, and 28 have been cancelled in this response. Applicant respectfully traverses the rejection of the subject claims, and asserts that Thukral does not teach every element of the subject claims.

A. Thukral does not teach "a DNA sequence encoding at least one GAL4 binding domain common peptide or at least one GAL4 activation domain common peptide" as recited in amended independent claims 1, 25, and 32.

To anticipate Applicant's invention, Thukral must teach every element of the invention. MPEP § 2131. But Thukral does not teach "a DNA sequence encoding at least one GAL4 binding domain common peptide or at least one GAL4 activation domain common peptide" as recited in amended independent claim 1. Rather, Thukral teaches "reporter polypeptide coding sequences" (Thukral, col. 7, ll. 13-14) in which the reporter polypeptide is "normally secreted by eucaryotic host cells which confer a property or activity when secreted which may be readily assayed" (Thukral, col. 3, ll. 55-60). Nowhere does Thukral teach or suggest DNA sequences that encode GAL4 binding or activation domains, as required by claim 1 as amended. Independent claims 25 and 32 have been similarly amended to overcome the Examiner's rejection.

Therefore, Applicant respectfully asserts that independent claims 1, 25, and 32 are not anticipated by Thukral, because Thukral does not teach every element of the subject claims. Claims 2, 3, 10, 11, 13, 23, 26, 27, and 29-31 depend either directly or indirectly from independent claims 1 or 25. All these dependent claims are allowable for at least the reasons cited above with respect to the independent claims. Accordingly, Applicant respectfully requests withdrawal of this rejection, and further request the timely issuance of a Notice of Allowance for these claims.

B. Thukral does not teach "a DNA sequence . . . lacking a translation initiation codon," as recited in independent claims 1, 25, and 32.

To anticipate Applicant's invention Thukral must expressly or inherently describe every element as set forth in independent claims 1, 25, and 32. MPEP § 2131. The examiner has acknowledged, "Thukral does not explicitly teach that the vector lacks a translation initiation sequence." (Office Action at 6.) Therefore, Thukral must inherently teach a vector that lacks a translation initiation sequence to anticipate the subject claims. Applicant respectfully submits that Thukral does not specifically or inherently teach "a DNA sequence . . . lacking a translation initiation codon," or that "the hybrid protein region lacks a translation initiation codon 5' of the cDNA" as recited in independent claims 1, 25, and 32.

With regard to inherent anticipation, "the Examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." MPEP § 2112

(emphasis added). But "[t]he fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic." MPEP § 2112.

As the Examiner has pointed out (Office Action at 6), Thukral teaches how pYYA-41L and pYYA-2 were made (Thukral, col. 10, ll. 34-41). Specifically, Thukral teaches that "sequences between the alcohol dehydrogenase (ADH) promoter and ADH terminator were removed and replaced by a polylinker which has restriction sites in the following order: HindIII-XhoI-SalI-EcoRI-SmaI-BamHI-SpeI-SphI-NotI-XhoI-SstI." (Thukral, col 10, ll. 34-38.) Contrary to the Examiner's assertion, however, it does not necessarily follow that "the GAL4 translation initiation sequence was specifically taught by Thukral to have been removed." (Office Action at 6.)

In Thukral, the GAL4 translation initiation codon begins at nucleotide 434, less than 30 nucleotides from the end of the ADH promoter. (pGBT9 Vector Information.) If Thukral inserted the polylinker into pGBT9 by replacing the multiple cloning site, for example, the GAL4 translation initiation site would still be present on the pYYA-41L and pYYA-2 expression vectors. Thukral also could have removed the GAL4 translation initiation site by inserting the polylinker into the HindIII site upstream of the translation initiation codon of pGBT9. This, however, would have resulted in the loss of the ADH terminator from the pYYA-41L and pYYA-2 expression vectors, because of a second HindIII site downstream of the ADH terminator. (See pGBT9 Vector Information.) The downstream HindIII site makes this strategy seem unlikely given Thukral teaches that pYYA-41L has "an ADH terminator sequence." (Thukral, col. 7, ll. 23-24.) Accordingly, a GAL4 translation initiation sequence is likely present in Thukral, and thus it does not necessarily follow that Thukral teaches the absence of a GAL4 translation initiation sequence, as required by the subject claims.

Therefore, Applicant respectfully asserts that independent claims 1, 25, and 32 are not anticipated by Thukral, because Thukral does not teach every element of the subject claims. Claims 2, 3, 10, 11, 13, 23, 26, 27, and 29-31 depend either directly or indirectly from independent claims 1 or 25. All these dependent claims are allowable for at least the reasons cited above with respect to the independent claims. Accordingly, Applicant respectfully requests withdrawal of this rejection, and further request the timely issuance of a Notice of Allowance for these claims.

C. Thukral does not teach "a cDNA molecule having a 5′ untranslated region," as recited in independent claims 1, 25, and 32.

The Examiner has stated:

> Thukral teaches that the cDNA molecules can be selected for the presence of 5' ends (see col. 4, lines 19-25; instant claimed limitation 'wherein the plurality of plasmid vectors contain a plurality of cDNA molecules generated using random primers and enriched for 5' cDNA...').

(Office Action at 6.) To anticipate Applicant's invention, Thukral must teach every element of the invention. MPEP § 2131. But Thukral does not teach "a cDNA molecule having a 5′ untranslated region" as recited in independent claim 1. Accordingly, Thukral does not anticipate the subject claims.

Thukral teaches that "cDNAs may be selected for the presence of 5′ ends (PCT Publication No. WO96/40904) . . . ." (Thukral, col. 4, ll. 24-25 (emphasis added).) The phrase "5′ ends," however, does not necessarily include "a cDNA molecule having a 5′ untranslated region and a translation initiation codon," as required by independent claim 1.

In PCT Publication No. WO96/40904, cited by Thukral, 5′ untranslated regions are specifically excluded: "The claimed signal trap cloning method involves enrichment of N-terminal (i.e., 5′) coding sequences." (PCT Publication No. WO96/40904 at 13 (emphasis added).) Because Thukral uses the phrase 5′ ends to refer to coding sequences, such 5′ ends must be translated. Accordingly, Thukral cannot anticipate the subject claims because Thukral does not teach the use of cDNA molecules having 5′ untranslated regions, as required by independent claims 1, 25, and 32.

Therefore, Applicant respectfully asserts that independent claims 1, 25, and 32 are not anticipated by Thukral, because Thukral does not teach every element of the subject claims. Claims 2, 3, 10, 11, 13, 23, 26, 27, and 29-31 depend either directly or indirectly from independent claims 1 or 25. All these dependent claims are allowable for at least the reasons cited above with respect to the independent claims. Accordingly, Applicant respectfully requests withdrawal of this rejection, and further request the timely issuance of a Notice of Allowance for these claims.

V. Rejection Under 35 U.S.C. § 103.

Claims 25-32 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,468,614 ("Fields") in view of Thukral. (Office Action at 9.) Claims 1-4, 10-13

and 23-24 were rejected under 35 U.S.C. §103(a) as being unpatentable over Fields in view of Thukral, further in view of U.S. Patent No. 6,083,727 issued to Karl Guegler et al. ("Guegler"). (Office Action at 15.) Claim 5 was rejected under 35 U.S.C. §103(a) as being unpatentable over Fields in view of Thukral, further in view of Guegler and further in view of U.S. Patent No. 5,679,647 issued to Dennis A. Carson et al. ("Carson"). (Office Action at 21.) Claim 6 was rejected under 35 U.S.C. §103(a) as being unpatentable over Fields in view of Thukral, further in view of Guegler and further in view of "A New Version of the Two-Hybrid Assay for Detection of Protein-Protein Interactions," Nucleic Acids Research 23:876-78 (1995), by Bertrand Le Douarin et al. ("Le Douarin"). (Office Action at 21-22.) Claim 7 was rejected under 35 U.S.C. §103(a) as being unpatentable over Fields in view of Thukral, further in view of Guegler and further in view of U.S. Patent No. 6,329,209 issued to Peter Wagner et al. ("Wagner"). (Office Action at 22.) Claim 8 was rejected under 35 U.S.C. §103(a) as being unpatentable over Fields in view of Thukral, further in view of Guegler and further in view of U.S. Patent No. 5,679,566 issued to Feng He et al. ("He"). (Office Action at 23.) Claim 12 was rejected under 35 U.S.C. §103(a) as being unpatentable over Thukral. (Office Action at 24.)

The MPEP sets forth the strict legal standard for establishing a prima facie case of obviousness based on modification or combination of prior art references. "To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references where combined) must teach or suggest all the claim limitations." MPEP § 2142, 2143. The teaching, suggestion, or motivation for the modification or combination and the reasonable expectation of success must both be found in the prior art and cannot be based on an applicant's disclosure. MPEP § 2142.

A. Fields in View of Thukral.

Applicant respectfully submits that Fields and Thukral, taken together, do not teach all of Applicant's claimed limitations. Applicant also submits that even if all of the claimed limitations are present in the proposed Fields-Thukral combination, the combination is improper because the Examiner has not provided a sufficient teaching, suggestion, or motivation in the prior art to make the proposed Fields-Thukral combination. Applicant further respectfully submits that an ordinary artisan acting at the time of Applicant's

invention would not have had a reasonable expectation that the combination would succeed. Finally, Applicant asserts that the Examiner has not considered the cited references and Applicant's invention as a whole, and therefore used improper hindsight reconstruction to make the proposed Fields-Thukral combination, which the MPEP and the governing Federal Circuit case law clearly prohibit.

1. A combination of Fields and Thukral does not teach all of the claimed limitations of Applicant's invention.

Applicant respectfully submits that neither Fields nor Thukral teaches or suggests the use of cDNA molecules having 5′ untranslated regions, as required by Applicant's independent claims 1, 25, and 32. Thukral teaches that "cDNAs may be selected for the presence of 5′ ends (PCT Publication No. WO96/40904) . . . ." The phrase "5′ ends," however, does not necessarily include "a cDNA molecule having a 5′ untranslated region and a translation initiation codon," as required by independent claim 1. In PCT Publication No. WO96/40904, cited by Thukral, 5′ untranslated regions are specifically excluded: "The claimed signal trap cloning method involves enrichment of N-terminal (i.e., 5′) coding sequences." (PCT Publication No. WO96/40904 at 13 (emphasis added).) Because Thukral uses the phrase 5′ ends to refer to coding sequences, such 5′ ends must be translated.

Accordingly, Thukral does not teach or suggest the use of cDNA molecules having 5′ untranslated regions, as required by the subject claims. Fields does not remedy this deficiency. A *prima facie* case of obviousness requires that the prior art references, when combined, must teach or suggest all of the claimed limitations. MPEP § 2143. Therefore, Applicant respectfully traverses and submits that the Fields-Thukral combination does not teach all of the claimed limitations of Applicant's invention. Applicant respectfully requests withdrawal of the rejection under 35 U.S.C. § 103 against the subject claims, and further requests the timely issuance of a Notice of Allowance.

2. There was no suggestion or motivation in the prior art or among those skilled in the art to combine the teachings of Fields and Thukral.

There must be a basis in the prior art to properly modify or combine reference teachings. MPEP § 2143. Accordingly, even if all elements of a claim are disclosed in various prior art references, the claimed invention taken as a whole cannot be said to be obvious without some reason given in the prior art why one of ordinary skill in the art at the time of the invention would have been prompted to modify the teachings of a reference or

combine the teachings of multiple references to arrive at the claimed invention. The Fields-Thukral combination is improper because (a) Fields-Thukral would render the prior art inventions unsatisfactory for their intended purposes; (b) Fields-Thukral would change the principle of operation of the prior art inventions; and (c) the vectors independently taught by Fields and by Thukral do not suggest a Fields-Thukral combination.

a. Fields-Thukral would render the prior art inventions unsatisfactory for their intended purposes.

There is no suggestion or motivation to combine Fields and Thukral because such a combination would render the Fields and Thukral inventions unsatisfactory for their intended purposes. MPEP §2143.01.

Fields' purpose is to "detect[] the interaction of proteins in an in vivo system through the use of fused genes encoding hybrid proteins." (Fields, col. l, ll. 14-16.) Fields teaches the use of two hybrid proteins, in which the two hybrid proteins may interact to activate transcription of a reporter protein. (Fields, col. 5, ll. 3-14.) The interaction between the two hybrid proteins "must be capable of occurring within the yeast nucleus." (Fields, col. 7, ll. 17-23 (emphasis added)).

On the other hand, Thukral's purpose is to "identify[] novel secreted mammalian proteins" using "signal trap vectors and related methods and compositions for identifying signal sequences in yeast host cells." (Thukral, col. 1, ll. 6-7, col. 2, ll. 24-26.) Thurkral teaches the use of one hybrid protein in which a putative signal sequence is cloned in front of a sequence that encodes a normally secreted reporter polypeptide that lacks a functional signal sequence. (Thukral, col. 6, ll. 57-62.) In-frame translation of a putative signal sequence and the reporter polypeptide may result in secretion of the reporter polypeptide outside of the yeast cell. (Thukral, col. 5, ll. 50-52.)

The different purposes of the Fields and Thukral inventions counsels against combining them. For example, Thukral's purpose of identifying secreted proteins is rendered inoperable, and therefore unsatisfactory for its indented purpose, if Thukral's reporter polypeptide is modified to the GAL4 of Fields. Fields', GAL4 is only operable in the nucleus of a cell (Fields, col. 7, ll. 17-23), and Thukral's reporter polypeptide is only operable outside of a cell (Thukral, col. 3, ll. 55-59). Thus, combining Thukral and Fields in a way that meets the limitations of the subject claims renders the inventions of Thukral and Fields inoperable and unsatisfactory for their intended purposes. Portions of prior art references that would lead away from the claimed invention must be considered with the rest of the reference.

MPEP § 2141.02. Indeed, Thukral teaches away from a Thukral-Fields combination, because Thukral provides that a selection criterion for a common peptide is that the cell would normally secrete the wild-type protein. (Thukral, col. 3, ll. 55-60.) Accordingly, there would be no motivation to combine the teachings of Fields and Thukral.

Therefore, for at least these reasons, Applicant respectfully traverses and submits that the Fields-Thukral combination is improper. Applicant respectfully requests withdrawal of the rejection under 35 U.S.C. § 103 against the subject claims, and further requests the timely issuance of a Notice of Allowance.

b. Fields-Thukral would change the principle of operation of the prior art inventions.

There is no suggestion or motivation to combine Fields and Thukral because such a combination would change the principle of operation of the Fields and Thukral inventions. MPEP §2143.01.

As discussed above, Fields operates based on two hybrid proteins that interact within a cell's nucleus, while Thukral operates based on one hybrid protein that must be secreted outside of the cell. Thukral teaches that the peptide common to its vector library (the reporter polypeptide), when fused to a secretion signal and secreted from the host cell, acts as a reporter through its own property or activity. (Thukral, col. 3, ll. 55-60.) The property or activity of the secreted reporter polypeptide allows selective growth on a defined medium or causes phenotypic change through reaction with a substrate in the growth medium. (Thukral, col. 8, ll. 8-61.) Thus, Thukral concerns one, secreted hybrid protein.

In contrast, Fields teaches that the domain of GAL4 that is common to its library does not act as a reporter unless there is a minimum level of interaction between the peptide that is fused to the GAL4 domain and a peptide that is part of another, second hybrid protein. (Fields, col. 7, ll. 17-25.) Thus, Fields envisions a reporter system that depends upon the presence of two, nonsecreted hybrid proteins.

Accordingly, the Fields-Thukral combination would change the basic principle under which Fields was designed to operate—a protein-protein intranuclear interaction. And the Fields-Thukral combination would change the basic principle under which Thukral was designed to operate—secretion of a functional polypeptide. Therefore, there would be no motivation to combine the teachings of Fields and Thukral.

Therefore, for at least these reasons, Applicant respectfully traverses and submits that the Fields-Thukral combination is improper. Applicant respectfully requests withdrawal of

the rejection under 35 U.S.C. § 103 against the subject claims, and further requests the timely issuance of a Notice of Allowance.

c. The vectors taught by Fields and Thukral do not suggest a Fields-Thukral combination.

The Examiner has acknowledged that Fields and Thukral have different purposes: "While Fields and Thukral construct vector libraries for different purposes, the vectors taught by both patents have common elements which are important to vector libraries in general and not specific to signal trap vectors." (Office Action at 13.) The Examiner reasons that because Fields and Thukral teach vectors with similar elements arranged in similar orientations, it would be obvious to an ordinary artisan to combine the references. (Office Action at 13-14.) Applicant does not concede that an ordinary artisan would view the elements of the Fields and Thukral vectors as generic components independent of their roles in the larger inventions. Rather, Applicant argues that the Examiner's reliance on close structural similarity as a basis for an obviousness rejection is misplaced in this instance, because the inventions of Fields, Thukral, and Applicant do not have similar properties or utilities. MPEP § 2144.09 ("A prima facie case of obviousness may be made when chemical compounds have very close structural similarities and similar utilities."); See In re Lalu, 747 F.2d 703, 707 (Fed. Cir. 1984) (framing the obviousness analysis as requiring an inquiry into whether the prior art "would suggest the expected properties of the claimed compounds" or whether the prior art discloses any utility of its compounds that "would support an expectation that the claimed compounds would have similar properties"). Although close structural similarity of compounds may give rise to a presumption of obviousness when there is an expectation that the compounds will have similar properties, the presumption is overcome when evidence shows that the expectation is unreasonable. MPEP § 2144.09.

Fields, Thukral, and Applicant teach vectors with different properties and different utilities. The structure of the Thukral vectors creates hybrid proteins that are exclusively useful to detect secretion signals through secretion of a reporter polypeptide outside of the cell. (Thukral, col. 3, ll. 55-60.) The structure of the Fields vectors creates hybrid proteins that can detect protein-protein interactions that occur in the nucleus of a cell. (Fields, col. 3, ll. 25-34; col. 7, ll. 18-20.) The structure of Applicant's vectors creates hybrid proteins with "a cDNA molecule having a 5′ untranslated region and a translation initiation codon" to adequately represent 5′ regions in a cDNA library, as well as detect protein-protein interactions in the nucleus of a cell. These differences are sufficient to rebut the presumption

that any structural similarity among the Fields, Thukral, and Applicant's vectors made Applicant's vector obvious over Fields in view of Thukral.

Further, to the extent that the Examiner contends that the inventions of Fields, Thukral, and Applicant have substantially identical structure, and that therefore the properties of each invention are inherent in the others, any presumption of obviousness has been overcome by evidence that the inventions do not have the ability to detect all of the same types of protein sequences. See MPEP § 2112.01. An applicant may rebut prima facie obviousness "'by evidence showing that the prior art products do not necessarily or inherently possess the characteristics of his [or her] claimed product.'" Id. As discussed directly above and in V(A)(2)(a.-b.), Applicant has put forth evidence that Applicant's invention has properties that are not individually possessed by either of the prior art references, so Applicant's invention was is not obvious in light of Fields and Thukral.

Therefore, for at least these reasons, Applicant respectfully traverses and submits that the Fields-Thukral combination is improper. Applicant respectfully requests withdrawal of the rejection under 35 U.S.C. § 103 against the subject claims, and further requests the timely issuance of a Notice of Allowance.

3. The Fields-Thukral combination has no reasonable expectation of success.

Not only does the incompatibility of Thukral with Fields preclude a suggestion or motivation to combine, but it also signifies that an ordinary artisan would not have reasonably expected that a combination or modification of the references would be successful. References can only be combined or modified to obviate claims when there is a reasonable expectation of success. MPEP §2143.02; see In re Dow Chemical Co., 837 F.2d at 471, 473 (Fed. Cir. 1988) ("Both the suggestion and the expectation of success must be founded in the prior art, not in the applicant's disclosure."). Such a reasonable expectation of success is lacking for the Fields-Thukral combination.

As discussed above, Fields operates based on two hybrid proteins that interact within a cell's nucleus, while Thukral operates based on one hybrid protein that must be secreted outside of the cell. A person of ordinary skill in the art would recognize that combining and modifying the teachings of Fields and Thukral is impossible, at least with respect to Fields' GAL4 and Thukral's reporter polypeptide. The skilled artisan would have recognized that the GAL4 two-hybrid assay as taught by Fields would not be a reliable reporter if hybrid proteins were secreted from the cell as taught by Thukral--in fact, the hybrid assay as taught

by Fields would be inoperable. The skilled artisan also would have recognized that the reporter polypeptides taught by Thukral would not function in a two-hybrid assay as taught by Fields, because Thukral's reporter polypeptides cannot activate transcription within a cell's nucleus, as is required by Fields. Because the teachings of Fields and Thukral are incompatible, there is no reasonable expectation that a Fields-Thukral combination would be successful. Accordingly, a prima facie case of obviousness over Fields in view of Thukral has not been shown.

Therefore, for at least these reasons, Applicant respectfully traverses and submits that the Fields-Thukral combination is improper. Applicant respectfully requests withdrawal of the rejection under 35 U.S.C. § 103 against the subject claims, and further request the timely issuance of a Notice of Allowance.

4. The proposed combination of Fields and Thukral does not take each prior art reference as a whole, but unacceptably parses the inventions for their parts.

When determining whether an invention is obvious in view of the prior art, the Examiner must view each prior art reference as a whole. MPEP 2141.02. In addition, the MPEP and the Federal Circuit repeatedly warn against using an applicant's disclosure as a blueprint to reconstruct the claimed invention. For example, the MPEP states, "The tendency to resort to 'hindsight' based upon applicant's disclosure is often difficult to avoid due to the very nature of the examination process. However, impermissible hindsight must be avoided and the legal conclusion must be reached on the basis of the facts gleaned from the prior art." MPEP § 2142; see In re Kotzab, 217 F.3d 1365, 1369 (Fed. Cir. 2000). Therefore, it is improper to base a determination of obviousness on the extraction and translocation of a detail from one invention to another.

Fields concerns a two-hybrid assay. The assay detects transcription of a reporter gene, which is activated when two hybrid proteins are brought together by the interaction of two test proteins. (Fields, col. 3, ll. 25-34 .) Thukral concerns a one-hybrid assay that uses the extra-cellular activity or property of its single hybrid protein as a reporter. (Thukral, col. 2, ll. 33-39.) The 5′ to 3′ orientation taught by Thukral cannot be divorced from Thukral's overarching system of creating a single hybrid protein with extracellular reporter activity. Similarly, the GAL4 of Fields cannot be divorced from its role in a two-hybrid assay. These elements are not separable from their functions within the larger inventions of Thukral and Fields.

Thus, for purposes of obviousness, the Examiner should consider every limitation of Applicant's claims. And when every limitation of Applicant's claims are considered, Applicant respectfully submits that the subject claims are not obvious in view of the Fields-Thukral combination. Therefore, for at least these reasons, Applicant respectfully traverses and submits that the Fields-Thukral combination is improper. Applicant respectfully requests withdrawal of the rejection under 35 U.S.C. § 103 against the subject claims, and further requests the timely issuance of a Notice of Allowance.

B. Fields in View of Thukral, Further in View of Guegler.

Claims 1-4, 10-13 and 23-24 were rejected under 35 U.S.C. §103(a) as being unpatentable over Fields in view of Thukral, further in view of Guegler. (Office Action at 15.) Applicant respectfully traverses and submits the cited art combinations, even if proper, which Applicant does not concede, does not render the subject claims obvious. As discussed above, Thukral does not teach the use of cDNA molecules having 5' untranslated regions. Also as discussed above, the Examiner has not established a prima facie case that a combination of Fields and Thukral renders claim 1 obvious. Guegler does not remedy these deficiencies. With respect to the other rejected claims, which depend from claim 1, Guegler also does not remedy these deficiencies. Accordingly, the recited combinations do not teach or suggest the inventions of claim 1 or the other rejected claims, which depend from claim 1.

Therefore, for at least these reasons, Applicant respectfully traverses and submits that the Fields-Thukral-Guegler combination is improper. Applicant respectfully requests withdrawal of the rejection under 35 U.S.C. § 103 against independent claim 1 and correspondingly, dependent claims 2-4, 10-13 and 23-24, and further request the timely issuance of a Notice of Allowance for the subject claims.

C. Fields in View of Thukral, Further in View of Guegler, and Further in View of Carson.

Claim 5 was rejected under 35 U.S.C. §103(a) as being unpatentable over Fields in view of Thukral, further in view of Guegler and further in view of Carson. (Office Action at 21.) Applicant respectfully traverses and submits the cited art combinations, even if proper, which Applicant does not concede, does not render the subject claims obvious. As discussed above, Thukral does not teach the use of cDNA molecules having 5' untranslated regions. Also as discussed above, the Examiner has not established a prima facie case that a combination of Fields and Thukral renders claim 1 obvious. Carson and Guegler do not

remedy these deficiencies. Accordingly, the recited combinations do not teach or suggest the inventions of claim 5, which depends from claim 1.

Therefore, for at least these reasons, Applicant respectfully traverses and submits that the Fields-Thukral-Guegler-Carson combination is improper. Applicant respectfully requests withdrawal of the rejection under 35 U.S.C. § 103 against claim 5, and further requests the timely issuance of a Notice of Allowance for claim 5.

D. Fields in View of Thukral, Further in View of Guegler, and Further in View of Le Douarin.

Claim 6 was rejected under 35 U.S.C. §103(a) as being unpatentable over Fields in view of Thukral, further in view of Guegler and further in view of Le Douarin. (Office Action at 21-22.) Applicant respectfully traverses and submits the cited art combinations, even if proper, which Applicant does not concede, does not render the subject claims obvious. As discussed above, Thukral does not teach the use of cDNA molecules having 5' untranslated regions Also as discussed above, the Examiner has not established a prima facie case that a combination of Fields and Thukral renders claim 1 obvious. Le Douarin and Guegler do not remedy these deficiencies. Accordingly, the recited combinations do not teach or suggest the inventions of claim 6, which depends from claim 1.

Therefore, for at least these reasons, Applicant respectfully traverses and submits that the Fields-Thukral-Guegler-Le Douarin combination is improper. Applicant respectfully requests withdrawal of the rejection under 35 U.S.C. § 103 against claim 6, and further requests the timely issuance of a Notice of Allowance for claim 6.

E. Fields in View of Thukral, Further in View of Guegler, and Further in View of Wagner.

Claim 7 was rejected under 35 U.S.C. §103(a) as being unpatentable over Fields in view of Thukral, further in view of Guegler and further in view of Wagner. (Office Action at 22.) Applicant respectfully traverses and submits the cited art combinations, even if proper, which Applicant does not concede, does not render the subject claims obvious. As discussed above, Thukral does not teach the use of cDNA molecules having 5' untranslated regions. Also as discussed above, the Examiner has not established a prima facie case that a combination of Fields and Thukral renders claim 1 obvious. Wagner and Guegler do not remedy these deficiencies. Accordingly, the recited combinations do not teach or suggest the inventions of claim 7, which depends from claim 1.

Therefore, for at least these reasons, Applicant respectfully traverses and submits that the Fields-Thukral-Guegler-Wagner combination is improper. Applicant respectfully requests withdrawal of the rejection under 35 U.S.C. § 103 against claim 7, and further requests the timely issuance of a Notice of Allowance for claim 7.

F. Fields in View of Thukral, Further in View of Guegler, and Further in View of He.

Claim 8 was rejected under 35 U.S.C. §103(a) as being unpatentable over Fields in view of Thukral, further in view of Guegler and further in view of He. (Office Action at 23.) Applicant respectfully traverses and submits the cited art combinations, even if proper, which Applicant does not concede, does not render the subject claims obvious. As discussed above, Thukral does not teach the use of cDNA molecules having 5' untranslated regions. Also as discussed above, the Examiner has not established a prima facie case that a combination of Fields and Thukral renders claim 1 obvious. He and Guegler do not remedy these deficiencies. Accordingly, the recited combinations do not teach or suggest the inventions of claim 8, which depends from claim 1.

Therefore, for at least these reasons, Applicant respectfully traverses and submits that the Fields-Thukral-Guegler-He combination is improper. Applicant respectfully requests withdrawal of the rejection under 35 U.S.C. § 103 against claim 6, and further requests the timely issuance of a Notice of Allowance for claim 8.

G. Thukral.

Claim 12, which depends from claim 1, was rejected under 35 U.S.C. §103(a) as being unpatentable over Thukral. (Office Action at 24.) Applicant respectfully traverses and submits that Thukral does not render the subject claims obvious. As discussed above, Thukral does not teach or suggest "a DNA sequence encoding at least one GAL4 binding domain common peptide or at least one GAL4 activation domain common peptide" as recited in amended independent claim 1. Nor does Thukral teach or suggest "a DNA sequence . . . lacking a translation initiation codon" as recited in independent claim 1 Also as discussed above, Thukral does not teach "a cDNA molecule having a 5′ untranslated region" as recited in independent claim 1.

Therefore, Applicant respectfully requests withdrawal of the rejection under 35 U.S.C. § 103 against claim 12, and further request the timely issuance of a Notice of Allowance for claim 12.

SUMMARY

In light of the above remarks and amendments, Applicant respectfully requests reconsideration and withdrawal of the outstanding objections and rejections. Applicant further submits that the application is now in condition for allowance, and earnestly solicits timely notice of the same. Should the Examiner have any questions, comments, or suggestions in furtherance of the prosecution of this application, the Examiner is invited to contact the attorney of record by telephone, facsimile, or electronic mail.

Applicant believes that there are no fees due in association with this filing of this Amendment and Response. However, should the Commissioner deem that any fees are due, including any fees for extensions of time, Applicant respectfully requests that the Commissioner accept this as a Petition Therefor, and direct that any additional fees be charged to Baker Botts L.L.P. Deposit Account No. 02-0383, Order Number 075511.0102.

Respectfully submitted,

Baker Botts L.L.P. (023640)

By: _____

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